

JetStream Smart Switches Datasheet

MODELS: TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 / TL-SG2210MP / TL-SG2218 / TL-SG2428P / TL-SL2428P V4.20



Overview

TP-Link's brand new JetStream gigabit smart switches provide huge upgrade comparing with previous versions. The switches can be managed by Omada SDN Controller, which provides professional and reliable one-step solutions. Integrated L2 and L2+ features such as 802.1Q VLAN, QoS, IGMP Snooping and static routing provide cost-effective networking solutions for small and medium-sized businesses without sacrificing enhanced usability and strong performance.

Omada Solution



Hospitality High Quality and Full Coverage Wi-Fi

Education High-Density Wi-Fi



Retail Social Marketing for O2O



Office

Wireless and Wired

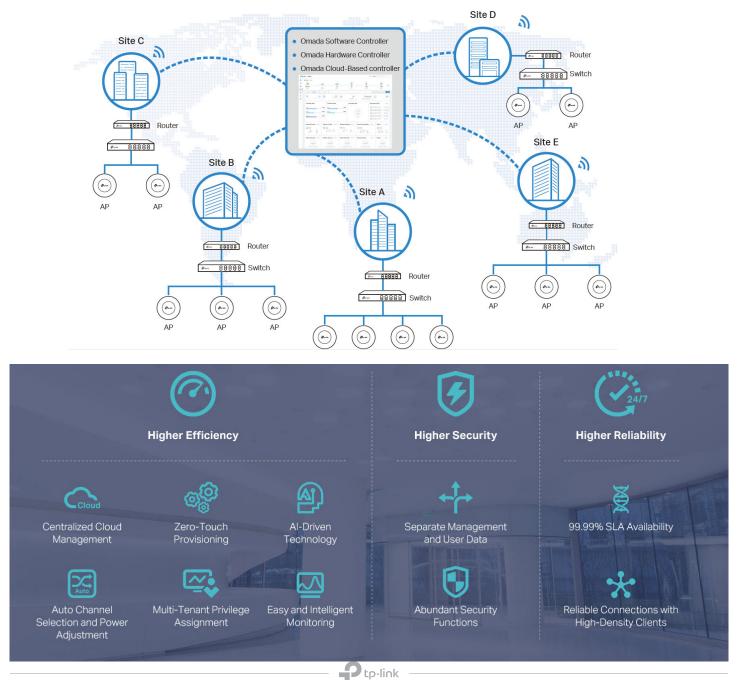
Connections



Catering Full Wi-Fi Coverage in High-Density Environment

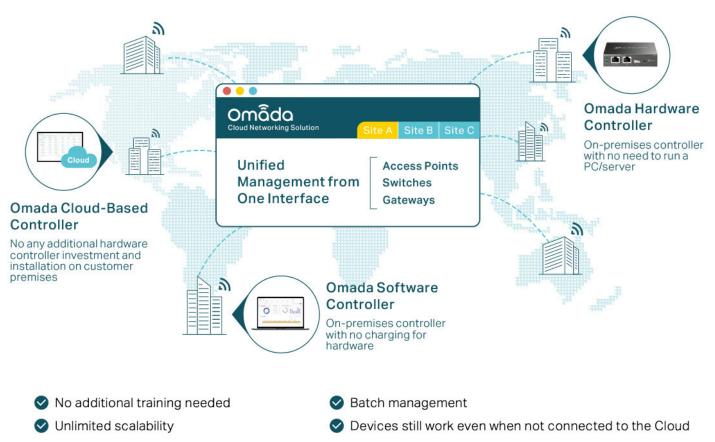
Software Defined Networking (SDN) with Cloud Access

Omada Software Defined Networking (SDN) platform integrates network devices, including access points, switches and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network——all controlled from a single interface. Seamless wireless and wired connections are provided, ideal for use in hospitality, education, retail, offices, and more.



Hassle-Free Centralized Cloud Management

100% centralized cloud management of the whole network from different sites——all controlled from a single interface anywhere, anytime.



Zero-Touch Provisioning for Efficient Deplyment¹

Omada zero-touch provisioning allows remotely deployment and configuration of multi-site networks, so there's no need to send out an engineer for on-site configuration. The Omada Cloud ensures efficient deployment with lower costs.



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1. Zero-Touch Provisioning is supported when using Omada Cloud-Based Controller

Intelligent Network Analysis, Warning, and Optimization*

- Analyzes potential network problems and sends optimization suggestions for higher network efficiency
- Locates network faults, warns and notify users, and generates solutions to reduce network risk

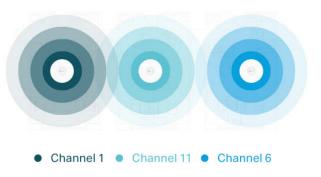


*Intelligent Network Analysis, Warning, and Optimization are being developed and are scheduled to be released in 2020

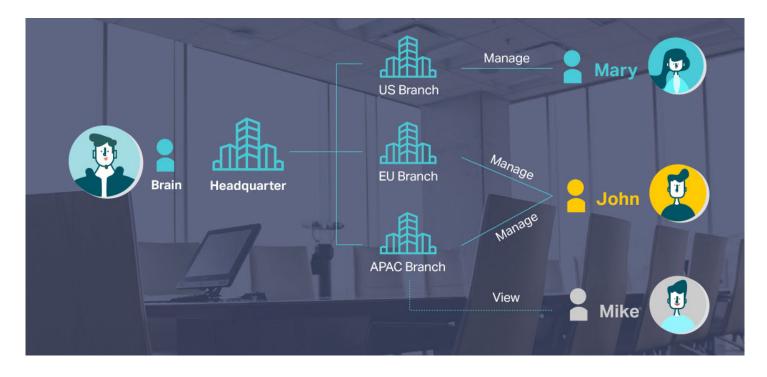
Assign Different Management Roles

Auto Channel Selection and Power Adjustment

Provides powerful wireless performance while greatly reducing Wi-Fi interference by automatically adjusting the channel settings and transmission power levels of neighboring APs in the same network.



Multi-user privilege assignment is available to increase management efficiency and security. Multi-person management, multi-level permissions, and the ability to add admins as needed, enable flexible network operation and maintenance.

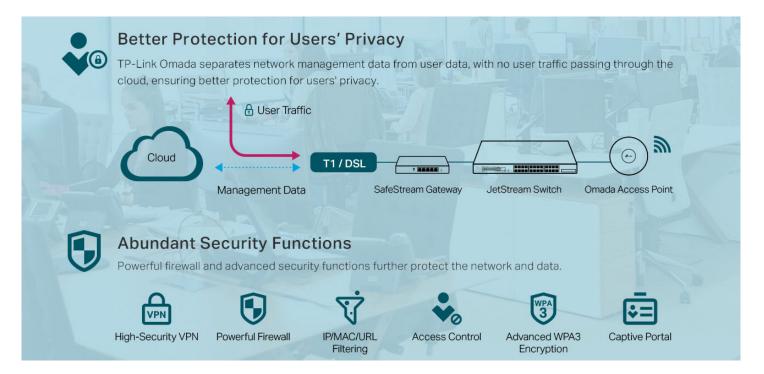


Easy and Intelligent Network Monitoring

The easy-to-use dashboard makes it easy to see your real-time network status; check network usage and traffic distribution; receive network condition logs, abnormal event warnings, and notifications; or even track key data for better business results. Network topology helps IP admins quickly see and troubleshoot connection at a glance.



Comprehensive Protection for the Whole Network



Multiple Factors Guarantee Higher Reliability

Higher reliability of cloud service is guaranteed with 99.99% SLA availability, 24/7 automated fault detection, geographically isolated backup servers, and reliable product quality. Your network functions even if management traffic is interrupted.



Reliable Connections Even with High-Density Clients

Equipped with enterprise chipsets, dedicated antennas, advanced RF functions, auto channel selection, and power adjustment, Omada Wi-Fi 6 and Wi-Fi 5 APs have high concurrency capacities for remarkable performance in high-density environments.



Highlights

- Gigabit Ethernet connections on all ports provide full speed of data transferring
- L2+ Feature ——Static Routing, helps route internal traffic for more efficient use of network resources
- Advanced security features include IP-MAC-Port Binding, ACL, Port Security, DoS Defend, Storm Control, DHCP Snooping, 802.1X and Radius Authentication
- L2/L3/L4 QoS and IGMP Snooping optimize voice and video applications
- Comprehensive IPv6 support for management, QoS and ACL
- Web/CLI managed modes, SNMP, RMON and Dual Image bring abundant management features

Advanced QoS features

To integrate voice, data and video service on one network, the switch applies rich QoS policies. Administrator can designate the priority of the traffic based on a variety of means including Port Priority, 802.1P Priority and DSCP Priority, to ensure that voice and video are always clear, smooth and jitter free. In conjunction with the Voice VLAN that the switches support, Voice Applications will perform better and smoother.

Abundant L2 and L2+ features

TP-Link JetStream smart switches support a complete lineup of L2 features, including IGMP Snooping/ MLD Snooping, 802.1Q/MAC/Protocol VLAN, STP/RSTP/MSTP, Link Aggregation Group (LAG), Port Isolation, Port Mirroring, and 802.3x Flow control function. IGMP Snooping ensures the multicast stream be forwarded intelligently to the appropriate subscribers by the switch, while IGMP Throttling & Filtering restricts each subscriber on a certain level to prevent unauthorized multicast access. Besides, these smart switches also support L2+ features like static routing. It is a simple way to provide segmentation of the network with internal routing through the switch and helps network traffic to be more efficient.

Enterprise Level Management Features

TP-Link JetStream smart switches support multiple user-friendly standard management features such as intuitive web-based Graphical User Interface (GUI), industrially standard Command Line Interface (CLI) and SNMP (v1/v2c/v3). These switches support RMON (Remote Network Monitoring), which enables the switch to be polled for valuable status information and send traps when encountering abnormal events. Also, this series of switches support Dual Image function, which makes there be less 'down-time' when switches are being upgraded/downgraded.

IPv6 Support

TP-Link JetStream smart switches support comprehensive IPv6 features including IPv6 management, ACL, QoS and MLD Snooping, all of these features help to ensure a smooth migration to IPv6-based network without changing switches in the future.

Specifications

Hardware Features & Performance

Prod	luct Picture			
Model		TL-SG2008 V3	TL-SG2008P	TL-SG2210P V3.20
	Interface	8 10/100/1000Mbps RJ45 Ports	8 10/100/1000Mbps RJ45 ports	8 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots
General	Flash	32 MB		
	DRAM	256 MB		
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber) (only for TL-SG2210P)		
	PoE Standard		802.3af/at	802.3af/at
PoE	PoE Ports		4, up to 30 W	8, up to 30 W
	PoE Power Budget		62 W	61 W
	Switching Capacity	16 Gbps	16 Gbps	20 Gbps
	Packet Forwarding Rate	11.90 Mpps		14.88 Mpps
	MAC Address Table	8K		
	Packet Buffer	4.1 Mbit		
Performance	Transmission Method	Store and Forward		
	Number of IP Interfaces	16		
	Number of Static Routers	32 (IPv4, IPv6)		
	Jumbo Frame	9 KB		
	Power Supply	12 VDC/1 A External Adapter or Obtain Power from PoE Source		
	Max Power Consumption	6.4 W (220 V/50 Hz)	7.9 W (220 V/50 Hz) (no PD connected) 69.7 W (220 V/50 Hz) (with 62 W PD connected)	10.3 W (220 V/50 Hz) (no PD connected) 76.5 W (220 V/50 Hz) (with 61 W PD connected)
	Max Heat Dissipation	21.84 BTU/hr (220 V/50 Hz)	26.95 BTU/hr (220 V/50 Hz) (no PD connected) 237.82 BTU/hr (220 V/50 Hz) (with 62 W PD connected)	35.14 BTU/hr (220 V/50 Hz) (no PD connected) 261.02 BTU/hr (220 V/50 Hz) (with 61 W PD connected)
Physical &	Standby Power Consumption	2.56 W (220 V/50 Hz)	2.89 W (220 V/50 Hz)	4.99 W (220 V/50 Hz)
Environmet	Dimensions (W x D x H)	8.2 × 4.9 × 1.0 in (209 × 126 × 26 mm)		
	Fan Quantity	Fanless		
	Installation	Desktop/Wall-Mounting		
	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)		
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)		
	Operation Humidity	10% to 90% RH, non-condensing		
	Storage Humidity	5% to 90% RH, non-condensing		
	Certification	CE, FCC, RoHS		

Hardware F	eatures & Perform	ance				
Proc	luct Picture					
Model		TL-SG2210MP	TL-SG2218	TL-SG2428P		
General	Interface	8 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots	16 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots	24 10/100/1000Mbps RJ45 ports 4 Gigabit SFP Slots		
	Flash	32 MB				
	DRAM	256 MB				
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber)				
	PoE Standard	802.3af/at	-	802.3af/at		
PoE	PoE Ports	8, up to 30 W	-	24, up to 30 W		
	PoE Power Budget	150 W	-	250 W		
	Switching Capacity	20 Gbps	36 Gbps	56 Gbps		
	Packet Forwarding Rate	14.88 Mpps	26.78 Mpps	41.66 Mpps		
	MAC Address Table	8K				
	Packet Buffer	4.1 Mbit				
Performance	Transmission Method	Store and Forward				
	Number of IP Interfaces	16				
	Number of Static Routers	32 (IPv4, IPv6)				
	Jumbo Frame	9 KB				
	Power Supply	100-240V AC, 50/60Hz				
	Max Power Consumption	12.2 W (110 V/60 Hz) (no PD connected) 173.9 W (110 V/60 Hz) (with 150 W PD connected)	12.3 W (220 V/50 Hz)	32.1 W (110 V/60 Hz) (no PD connected) 308.6 W (110 V/60 Hz) (with 250 W PD connected)		
	Max Heat Dissipation	41.63 BTU/hr (110 V/60 Hz) (no PD connected) 539.35 BTU/hr (110 V/60 Hz) (with 150 W PD connected)	41.97 BTU/hr	109.53 BTU/hr (110 V/60 Hz) (no PD connected) 1052.94 BTU/hr (110 V/60 Hz) (with 250 W PD connected)		
	Standby Power Consumption	8.56 W (110 V/60 Hz)	3.84 W (220 V/50 Hz)	21.96 W (110 V/60 Hz)		
Physical & Environmet	Dimensions (W x D x H)	11.6 x 7.1 x 1.7 in (294 x 180 x 44 mm)	17.3 × 7.1 × 1.7 in (440 × 180 × 44 mm)	17.3 × 8.7 × 1.7 in (440 × 220 × 44 mm)		
	Fan Quantity	1	Fanless	2		
	Installation	Rackmount/Desktop	Rackmount	Rackmount		
	Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)				
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)				
	Operation Humidity	10% to 90% RH, non-condensing				
	Storage Humidity	5% to 90% RH, non-condensing				
	Certification	CE, FCC, RoHS				

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Hardware F	eatures & Perform	ance
Product Picture		
Model		TL-SL2428P V4.20
Interface		24 10/100 Mbps RJ45 Ports 2 10/100/1000 Mbps RJ45 Ports 2 Combo Gigabit RJ45/SFP Ports
	Flash	32 MB
General	DRAM	256 MB
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber)
	PoE Standard	802.3af/at
PoE	PoE Ports	24, up to 30 W
	PoE Power Budget	250 W
	Switching Capacity	12.8 Gbps
	Packet Forwarding Rate	9.52 Mpps
	MAC Address Table	Store and Forward
	Packet Buffer	8К
Performance	Transmission Method	4.1 Mbit
	Number of IP Interfaces	16
	Number of Static Routers	32 (IPv4, IPv6)
	Jumbo Frame	9 КВ
	Power Supply	100-240V AC, 50/60Hz
	Max Power Consumption	18.8 W (220 V/50 Hz) (with no PD connected) 286.7 W (220 V/50 Hz) (with 250 W PD connected)
	Max Heat Dissipation	64.1 BTU/hr (220 V/50Hz) (with no PD connected) 977.6 BTU/hr (220 V/50 Hz) (with 250 W PD connected)
	Standby Power Consumption	15.9 W (220 V/50 Hz)
Physical & Environmet	Dimensions (W x D x H)	17.3 × 7.1 × 1.7 in (440 × 180 × 44 mm)
	Fan Quantity	2
	Installation	Rackmount
	Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
	Operation Humidity	10% to 90% RH, non-condensing
	Storage Humidity	5% to 90% RH, non-condensing
	Certification	CE, FCC, RoHS

oftware Feature	5	
Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 TL-SL2428P V4.20) / TL-SG2210MP / TL-SG2218 / TL-SG2428P /
SDN Support	 Support Omada Hardware Controller (OC200/ OC300), Software Controller, Cloud-Based Controller Automatic Device Discovery Batch Configuration Batch Firmware Upgrading 	 Intelligent Network Monitoring Abnormal Event Warnings Unified Configuration Reboot Schedule ZTP (Zero-Touch Provisioning)*
L2+ Features	 16 IP Interfaces Support IPv4/IPv6 Interface Static Routing 32 IPv4/IPv6 Static Routes DHCP Server DHCP Relay DHCP Interface Relay DHCP VLAN Relay DHCP L2 Relay 	 Static ARP Proxy ARP Gratuitous ARP
L2 Features	 Link Aggregation Static link aggregation 802.3ad LACP Up to 8 aggregation groups and up to 8 ports per group Spanning Tree Protocol 802.1D STP 802.1w RSTP 802.1s MSTP STP Security: TC Protect, BPDU Filter/Protect, Root Protect Loopback Detection 	 Flow Control 802.3x Flow Control Mirroring Port Mirroring CPU Mirroring One-to-One Many-to-One Flow-Based Ingress/Egress/Both Device Link Detect Protocol (DLDP) 802.1ab LLDP/ LLDP-MED
L2 Multicast	 • 511 IPv4, IPv6 shared multicast groups • IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - Static Group Config • Multicast VLAN Registration (MVR) • Multicast Filtering 	 MLD Snooping MLD v1/v2 Snooping Fast Leave MLD Snooping Querier Static Group Config Limited IP Multicast (256 profiles and 16 entries per profile)
VLAN	 VLAN Group Max. 4K VLAN Groups 802.1Q tag VLAN MAC VLAN 	• Protocol VLAN • GVRP • Voice VLAN
QoS	 802.1p CoS/DSCP priority 8 priority queues Priority Schedule Mode SP (Strict Priority) WRR (Weighted Round Robin) Queue Weight Config 	 Bandwidth Control Port/Flow based Rating Limit Smoother Performance Storm Control Multiple Control Modes(kbps/ratio) Broadcast/Multicast/Unknown-Unicast Control

* Zero-Touch Provisioning is supported when using Omada Cloud-Based Controller

Software Feature	es		
Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 / TL-SG2210MP / TL-SG2218 / TL-SG2428P / TL-SL2428P V4.20		
ACL	 Support up to 230 entries Time-Range Time Slice Week Time-Range Absolute Time-Range Holiday Time-based ACL MAC ACL Source MAC Destination MAC VLAN ID User Priority Ether Type IP ACL Source IP Destination IP IP Protocol TCP Flag TCP/UDP Source Port TCP/UDP Destination Port DSCP/IP TOS 	 IPv6 ACL Combined ACL Rule Operation Permit/Deny Policy Action Mirror Rate Limit Redirect QoS Remark ACL Rules Binding Port Binding VLAN Binding Actions for flows Mirror (to supported interface) Redirect (to supported interface) Rate Limit QoS Remark 	
Security	 AAA 802.1X Port based authentication MAC (Host) based authentication Authentication Method includes PAP/EAP-MD5 MAB Guest VLAN Support Radius authentication and accountability IP/IPv6-MAC Binding 512 Binding Entries DHCP Snooping DHCPv6 Snooping ARP Inspection ND Detection ND Detection ND Snooping IP Source Guard 253 Entries Source IP+Source MAC 	 IPv6 Source Guard 183 Entries Source IPv6 Address+Source MAC DoS Defend DHCP Filter Static/Dynamic/Permanent Port Security Up to 64 MAC addresses per port Broadcast/Multicast/Unicast Storm Control kbps/ratio control mode Port Isolation Secure web management through HTTPS with SSLv3/TLS 1.2 Secure Command Line Interface (CLI) management with SSHv1/SSHv2 IP/Port/MAC based access control	

Software Features	6	
Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 TL-SL2428P V4.20	0/TL-SG2210MP/TL-SG2218/TL-SG2428P/
IPv6 Support	 IPv6 Static Routing and ACL IPv6 Dual IPv4/IPv6 IPv6 Interface Multicast Listener Discovery (MLD) Snooping IPv6 neighbor discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version TCPv6/UDPv6 IPv6 applications DHCPv6 Client Ping6 Tracert6 Telnet(v6) IPv6 SSH IPv6 SSL Http/Https IPv6 TFTP 	
Management	 Web-based GUI Command Line Interface (CLI) through telnet SNMPv1/v2c/v3 SNMP Trap/Inform RMON (1,2,3,9 groups) SDM Template DHCP/BOOTP Client 	 Dual Image, Dual Configuration CPU Monitoring Cable Diagnostics EEE SNTP System Log
MIBs	 MIB II (RFC1213) Bridge MIB (RFC1493) P/Q-Bridge MIB (RFC2674) Radius Accounting Client MIB (RFC2620) 	 Radius Authentication Client MIB (RFC2618) Remote Ping, Traceroute MIB (RFC2925) Support TP-Link private MIBs RMON MIB(RFC1757, rmon 1,2,3,9)

Ordering Information

Host Switch	
Model	Description
TL-SG2008 V3	JetStream 8-Port Gigabit Smart Switch
TL-SG2008P	JetStream 8-Port Gigabit Smart Switch with 4-Port PoE+
TL-SG2210P V3.20	JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+
TL-SG2210MP	JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+
TL-SG2218	JetStream 16-Port Gigabit Smart Switch with 2 SFP Slots
TL-SG2428P	JetStream 28-Port Gigabit Smart Switch with 24-Port PoE+
TL-SL2428P V4.20	JetStream 24-Port 10/100Mbps + 4-Port Gigabit Smart Switch with 24-Port PoE+

SFP Modules	
Model	Description
TL-SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
TL-SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
TL-SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
TL-SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
TL-SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
TL-SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km

MC Series Media Converter		
Model	Description	
MC210CS	Gigabit Single-Mode Media Converter, up to 20 km, chassis mountable	
MC200CM	Gigabit multi-mode SC SFP Transceiver, up to 550 m, chassis mountable	
MC200L	Gigabit SFP slot supporting mini-GBIC modules, chassis mountable	
TL-MC1400	14-slot power supply chassis for TP-LINK MC Series Media Converter, 19-inch rack-mountable	

FC Series Media Converter		
Model	Description	
TL-FC111A-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable	
TL-FC111B-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable	
TL-FC311A-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1550nm, RX:1310nm, chassis mountable	
TL-FC311B-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1310nm, RX:1550nm, chassis mountable	
TL-FC311A-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable	
TL-FC311B-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable	
TL-FC1400	14-slot power supply chassis for TP-LINK FC Series Media Converter, 19-inch rack-mountable	

Some models featured in this guide may be unavailable in your country or region. Visit TP-Link website for local sales information: www. tp-link.com.

PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.

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